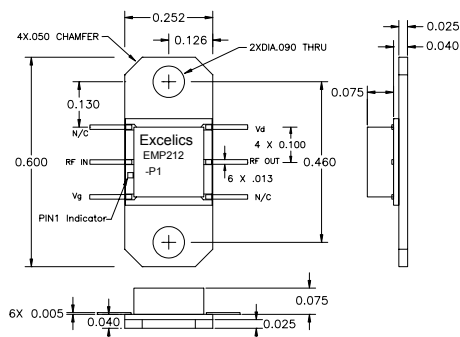


FEATURES

- 9.0 – 12.0 GHz Operating Frequency Range
- 30.0dBm Output Power at 1dB Compression
- 16.0 dB Typical Small Signal Gain
- -40dBc OIMD3 @Each Tone Pout 19.5dBm

APPLICATIONS

- Point-to-point and point-to-multipoint radio
- Military Radar Systems



Optional Packaging solutions are available
 Contact the Excelics sales team for details.



Caution! ESD sensitive device.

ELECTRICAL CHARACTERISTICS (T_a = 25 °C, 50 ohm, VDD=7V, IDQ=800mA)

| SYMBOL | PARAMETER/TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|------------------|--|------|------|------|-------|
| F | Operating Frequency Range | 9.0 | | 12.0 | GHz |
| P1dB | Output Power at 1dB Gain Compression | 28.0 | 30.0 | | dBm |
| G _{ss} | Small Signal Gain | 13.0 | 16.0 | | dB |
| OIMD3 | Output 3 rd Order Intermodulation Distortion @Δf=10MHz, Each Tone Pout 19.5dBm | | -40 | -37 | dBc |
| Input RL | Input Return Loss | | -10 | -8 | dB |
| Output RL | Output Return Loss | | -10 | -6 | dB |
| I _{dss} | Saturate Drain Current V _{DS} =3V, V _{GS} =0V | 990 | 1238 | 1486 | mA |
| V _{DD} | Power Supply Voltage | | 7 | 8 | V |
| R _{th} | Thermal Resistance (Au-Sn Eutectic Attach) | | 7.5 | | °C/W |
| T _b | Operating Base Plate Temperature | -35 | | +85 | °C |

ABSOLUTE MAXIMUM RATINGS FOR CONTINUOUS OPERATION^{1,2}

| SYMBOL | CHARACTERISTIC | VALUE |
|------------------|-------------------------|-------------------|
| V _{DS} | Drain to Source Voltage | 8 V |
| V _{GS} | Gate to Source Voltage | -4 V |
| I _{DD} | Drain Current | I _{dss} |
| I _{GSF} | Forward Gate Current | 16mA |
| P _{IN} | Input Power | @ 3dB compression |
| T _{CH} | Channel Temperature | 150°C |
| T _{STG} | Storage Temperature | -65/150°C |
| P _T | Total Power Dissipation | 15.8W |

1. Operating the device beyond any of the above rating may result in permanent damage.

2. Bias conditions must also satisfy the following equation $V_{DS} \cdot I_{DS} < (T_{CH} - T_{HS})/R_{TH}$; where T_{HS} = ambient temperature

Specifications are subject to change without notice.

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EMP212-P1

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9.0 – 12.0 GHz Power Amplifier MMIC

DISCLAIMER

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AS HERE IN:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, or (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.
2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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page 2 of 2
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